UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,046	06/30/2000	D'Arcy M. Tyrrell III	062986.0186	2977

7590 02/15/2006

Baker Botts LLP
2001 Ross Avenue
Dallas, TX 75201-2980

EXAMINER	
STRANGE, AARON N	
ART UNIT	**PAPER NUMBER**
2153	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/609,046	TYRRELL ET AL.	
	Examiner	Art Unit	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/30/2005 have been fully considered but they are not persuasive.

2. With regard to claims 1,8,14 and 21, and Applicant's assertion that Cajolet "has no capability to provide one or more samples of the rendered frames for the render job to the client prior to completion of the render job by the first and second servers" (Page 11, Lines 27-31 of Remarks), the Examiner respectfully disagrees. As discussed in the Office action of 8/31/05 (¶3), Cajolet specifically recites such an operation. Cajolet discloses that "after an assisting computer has completed its portion of the task, it returns the rendered image data for a portion of the frame, or for a rendered frame, to the problem dispatcher" (Col 10, Lines 34-37). Once the rendered data is received, it is assembled and stored in the appropriate location for access by the client (Col 10, Lines 37-40).

In the system disclosed by Cajolet, an assisting computer will return a portion of a frame and/or the entire frame, prior to the render job being completed, since a plurality of assisting computers are working on the problem simultaneously.

It appears that Applicant may be interpreting the assisting computer's "portion of the task" as the render job, when in fact it is only a portion of the entire render job. Each assisting computer works on one or more portions of the render job (some computers may start on another portion after finishing a first one) (Col 10, Lines 45-47), and will

provide samples of the rendered frame(s), since the first portion/frame rendered will be returned and stored prior to completion of the entire render job.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

4. Claims 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. With regard to claim 8, the limitation "prior to completion of the render job by the first one of the plurality of render servers" is unclear. If there are plurality of render servers simultaneously working on a render job, there is no way to know which server will render the last frame in the job and thus "complete" the render job. The claim appears to state that the first render server will complete the final frame (and the job), but it is unclear how this could be known in a system containing multiple render servers. Appropriate amendment and/or explanation is required.

6. All claims not individually rejected are rejected by virtue of their dependency from the above claim(s).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Cajolet (US Patent 6,192,388).

9. **Regarding claim 1**, Cajolet shows steps for:

receiving from a client a render job having an associated job profile (graphics program) and a plurality of frames in an animation sequence (col. 5 line 54- col. 6 line 4);

distributing via a communications medium (62) a first frame of the animation sequence to a first one of a plurality of render servers (86) and the second frame of the animation sequence to a second one of the plurality of render servers based at least in part on the job profile; the first and second frames being different (col. 6 lines 2-8, 28-45, col. 7 lines 48-52);

rendering the first and second frames concurrently at the first and second render servers (col. 6 lines 4-8, 40-45, col. 10 lines 18-25); and

forwarding the rendered first and second frames to a network storage system for retrieval by the client (Col 10, Lines 37-40);

providing one or more samples of the rendered frames for the render job to the client prior to completion of the render job by the first and second servers (Col 10, Lines 34-40).

10. **Regarding claim 2**, Smith shows that receiving from a client the render job comprises receiving the render job from a computer remote from the plurality of render servers (computers may be connected via a WAN) (Col 6, Lines 16-17).

11. **Regarding claim 3**, Cajolet shows distributing the first and second frames comprises distributing the first and second frames by a scheduler (88), the scheduler operable determine which of the plurality of render servers are capable of rendering the first and second frames (col. 6 lines 46-55, col. 10 lines 18-25).

12. **Regarding claim 4**, Cajolet shows the scheduler is operable to determine which of the plurality of render servers are capable of rendering the first and second frames by accessing a database storing the capabilities each of the plurality of render servers (col. 8 lines 38-53).

13. **Regarding claim 5**, Cajolet shows the capabilities database stores the type of rendering package associated with each of the plurality of render servers (computational characteristics, user profile, col. 8 lines 43-53).

14. **Regarding claim 6**, Cajolet shows capabilities database stores a processing status for each of the plurality of the render servers (col. 9 lines 53-56).

15. **Regarding claim 7**, Cajolet shows further comprising transmitting the rendered first and second frames to the client (col. 10 lines 34-40).

16. **Regarding claim 8**, Cajolet shows

a resource database (51) comprising resource information regarding a plurality of render servers (col. 8 lines 38-54); and

a schedule server (88) coupled the plurality of render servers via a communications medium, the schedule server operable to receive a render job from a client, the render job having an associated job profile and a plurality of image frames in a sequence (Col 5, Line 54 to Col 6, Line 8);

the schedule server operable to distribute a first frame of the sequence to a first one of a plurality of render servers based on a comparison of the job profile and the resource information (col. 6 lines 2-8, 28-45, col. 7 lines 48-52), the schedule server operable to provide one or more samples of the rendered first frame received from the first one of the plurality of render servers for the render job to the client prior to

completion of the render job by the first one of the plurality of render servers (frames/portions are received and stored as they are received)(Col 10, Lines 34-40).

17. **Regarding claim 9**, Cajolet shows the resource information comprises the type of rendering package associated with each of the plurality of render servers (computational characteristics, user profile, col. 8 lines 43-53).

18. **Regarding claim 10**, Cajolet shows the resource information comprises a processing status for each of the plurality of the render servers (col. 9 lines 53-56).

19. **Regarding claim 11**, Cajolet shows schedule server is operable to determine whether a particular one of the render servers is capable of rendering a particular render job (col. 10 lines 18-25).

20. **Regarding claim 12**, Cajolet shows resource database further comprises resource information regarding a plurality of render hosts associated with respective ones of the render servers (col. 8 lines 43-53).

21. **Regarding claim 13**, Cajolet shows resource information comprises hardware configuration information regarding the render hosts (col. 8 lines 43-53).

22. **Regarding claim 14**, Cajolet shows steps for:

a local rendering system operable to receive from a client a render job having a plurality frames in an animation sequence (col. 5 lines 54- col. 6 line 4); and

at least one remote rendering system comprising a plurality of remote render servers (fig. 3, col. 6 lines 11-17) and operable to:

receive from the local rendering system the render job; distribute a first frame of the sequence to a first one of the plurality of remote render servers and a second frame of the sequence to a second one of the plurality of remote render servers the first and second frames being different (col. 6 lines 2-8, 28-45, col. 7 lines 48-52)

render the first and second frames concurrently at the first and second remote render servers (col. 6 lines 4-8, 40-45, col. 10 lines 18-25); and

return a result of the render job to the local rendering system (col. 10 lines 34-37);

wherein the remote rendering system is operable to provide one or more samples of the rendered first or second frames for the render job to the local rendering system prior to completion of the render job by the remote rendering system (Col 10, Lines 34-40).

23. **Regarding claim 15**, Cajolet shows:

a plurality of render servers operable to render a render job having an associated job profile (graphics program, col. 6 lines 34) ;

a resource database comprising resource information regarding the plurality of render servers (col. 8 lines 43-53); and

a schedule server (88- program dispatcher) coupled to the render server via a communications medium and operable to distribute the render job to one or more of a plurality of render servers based on a comparison of the job profile and the resource information (col. 6 lines 3-8).

24. **Regarding claim 16**, Cajolet shows:

a resource database comprising resource information regarding the plurality of render servers (col. 8 lines 43-53); and

a schedule server (88) coupled to the remote render servers via a communications medium and operable distribute the render job to at least the first and second remote render servers based on a comparison of the job profile and the resource information (col. 6 3-8, col. 10 18-25).

25. **Regarding claim 17**, Cajolet shows the resource information comprising the type of rendering package associated with each of the plurality of remote render servers (computation characteristics, col. 8 lines 43-53).

26. **Regarding claim 18**, Cajolet shows the resource information comprises a processing status for each of the plurality of remote render servers (col. 9 lines 53-56).

27. **Regarding claim 19**, Cajolet shows the schedule server is operable to determine whether a particular one of the remote render servers capable of rendering a particular render job (col. 8 lines 38-53).

28. **Regarding claim 20**, Cajolet shows the resource database further comprises resource information regarding a plurality of render hosts associated with respective ones of the remote render servers (col. 8 lines 43-53).

29. **Regarding claim 21**, Cajolet shows:

receiving a render job having a plurality of frames in an animation sequence from a client at a first rendering site (66, 88, col. 5 lines 54- col. 6 line 4) ;

transferring the render job from the first rendering site to a second rendering site (80), the second rendering site located remote from the first rendering site and comprising a plurality of remote render servers (fig. 3, col. 6 lines 9-60);

distributing a first frame of the sequence to a first one of the plurality of remote render servers and a second frame of the sequence to a second one of the plurality of remote render servers, wherein the first and second frames are different (col. 6 lines 2-8);

rendering the first and second frames concurrently at the first and second remote render servers (col. 6 lines 4-8, 40-45, col. 10 lines 18-25);

providing one or more samples of the rendered frames for the render job to the client prior to completion of the render job by the first and second remote servers (Col 10, lines 34-40).

30. **Regarding claim 22**, Cajolet shows transmitting the rendered first and second frames to the client (col. 10 lines 34-40).

31. **Regarding claim 23**, Cajolet shows transmitting the rendered first and second frames from the second render site to the first render site (col. 10 lines 34-40).

32. **Regarding claim 24**, Cajolet shows storing the rendered first and second frames in a location accessible by the client (col. 10 lines 34-40).

33. **Regarding claim 25**, Cajolet shows the first rendering site comprises: a plurality of render servers operable to render a render job having an associated job profile (fig. 3);

a resource database comprising resource information regarding the plurality of render servers (col. 8 lines 38-53); and

a schedule server coupled the render server via a communications medium and operable to distribute the render job to one or more of a plurality of render servers based on a comparison of the job profile and the resource information (col. 6 lines 46-60).

34. **Regarding claim 26**, Cajolet shows a resource database comprising resource information regarding the plurality of render servers (col. 8 lines 38-53); and

a schedule server coupled to the remote render servers via a communications medium and operable distribute the render job to at least the first and second remote render servers based on a comparison of the job profile and the resource information (col. 6 lines 46-60).

35. **Regarding claim 27**, Cajolet shows files associated with the render job from the first site to the second site, the associated files being necessary to render the render job (col. 9 lines 1-4).

36. **Regarding claim 28**, Cajolet shows the associated files comprise a texture file (col. 5 lines 60-66).

37. **Regarding claim 29**, Cajolet shows notifying, by the second rendering site, the first rendering site when the render job has been rendered (col. 10 lines 34-37).

Conclusion

38. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS 1/29/2006

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100